Figure 1

SEQ ID NO:1

GATGANCATTTATTAACGCACAACAACAATACAATTACATANGGCAACAATCAAATATA
CATTCATTTGAAGTGATGATCACAGAAATTTACATACAGATACAACAATTTACATGATG
GGGGACAAAATGACAATTTTGGGACGGTGGGATG**GGATCC**TATCATGTCCATGTTGAGG
TGACGAAGCATCCTTCCATCAGACGTTGTACTCGATCGGCAAGTTCTTGCGGCGCACCA
TCCCGTCTCCCTGGAACCA**CTCGAG**CTTGAACGTGGTGTCGGCTGGGTCCGGTGTGTTG
GTCCACTCCGCGGCGGCGGCGGCGCCGGGCGGTTCCGGCACGTTGGTCCACGCCACGGT
CACACGGTCGTCCTTGGTGTCCTCGCTGCCGGGGTCGAAGGCGTCNCAGAANACGGCCA
CGTTGACAGATTCCTTTGGGCCGANCACTCCGTCCGGCGGGTTCATGTTGATNCGCTTC
GGTTTG**GTGGTCTTGAAGGC**GTAGCCGATGCGCTTCGTCCCAAGGTTGATCACNCNCAA
GTAGTANATGGCTTTGTTGTCGAAGGNACGTTGNAANAGATCTTCTGCGTGGGCATTGT
TGCGACGTCCTCTGGTGGAAGTTGCGCCATTGCTGTTGTTGTCGCTGTTGTCGGGCTGG
CTTTGTGGGTGCTTGATGTGTGATCGTTGAGAGCGTTGCTTGAAGTGTTGCTGCTATGC
TGCTGAGTGAGGGGAATGTGCAAAATCCACCTCCTTATATACAAAATTCGGGTGCAAAA
ATTCATGCAGCAAAAAAAAAGTGTATAAAAGGCGACGGTTTTCTTCACTTTTCACCAGT
GCCAGCCAGCCTTCAACTCAACGCAACATCAACACCAGTGCGCGCCAAGCTCGTCTACA
CATTTCGTCGCGACAACTCATCACTGATCACAGAAATTTACATACAGATACAACAATTT
ACATGATGGGGGACAAAATGACAATTTTGGGACGGTGGGATGGGATCCTATCATGTCCA
TGTTGAGGTGACGAAGCATCCTTCCATCAGACGTTGTACTCGATCGGCAAGTTCTTGCG
GCGCACCATCCCGTCTCCCTGGAACCACTCGAGCTTGAACGCGGTGACCGGCAGGGCCC
GGCGTGTTGGTCCACTCCACGGCGGCGGTGGCGCCGGGAGGCTNCNCGTGTTGGTCCAC
TCCACGGTCACACGGTCGCCCTTGGGTGTCCTCGCTTNACCTNCNTNTNCGTTTNNNNT
GNTATTTTGCCGNACTGN

Figure 2A

SEQ ID NO:4

C'TCGAGCTTGAACGTGGTGTCGGCTGGGTCCGGTGTGTTGGTCCACTCCGCGGCGGCG
GCGGCGCCGGGCGGTTCCGGCACGTTGGTCCACGCCACGGTCACACGGTCGTCCTTGGT
GTCCTCGCTGCCGGGGTCGAAGGCGTCNCAGAANACGGCCACGTTGACAGATTCCTTTG
GGCCGANCACTCCGTCCGGCGGGTTCATGTTGATNCGCTTCGGTTTG**GTGGTCTTGAAG**
GCCTGCA'G

Figure 2B

SEQ ID NO:45

G'GATCCTATCATGTCCATGTTGAGGTGACGAAGCATCCTTCCATCAGACGTT
GTACTCGATCGGCAAGTTCTTGCGGCGCACCATCCCGTCTCCCTGGAACCACT
CGAGCTTGAACGTGGTGTCGGCTGGGTCCGGTGTGTTGGTCCACTCCGCGGC
GGCGGCGGCGCCGGGCGGTTCCGGCACGTTGGTCCACGCCACGGTCACACGG
TCGTCCTTGGTGTCCTCGCTGCCGGGGTCGAAGGCGTCNCAGAANACGGCCA
CGTTGACAGATTCCTTTGGGCCGANCACTCCGTCCGGCGGGTTCATGTTGATN
CGCTTCGGTTTGGTGGTCTTGAAGGCCTGCAGCCATGGNNNNNNNNNNNNNN
NNNNNNNNNNNNNNNNN**G'AATTC**

Figure 3

SEQ ID NO:5

CTGCA'GGCCTTCAAGACCACCAAACCGAAGCGNATCAACATGAACCCGCC
GGACGGAGTGNTCGGCCCAAAGGAATCTGTCAACGTGGCCGTNTTCTGNG
ACGCCTTCGACCCCGGCAGCGAGGACACCAAGGACGACCGTGTGACCGTG
GCGTGGACCAACGTGCCGGAACCGCCCGGCGCCGCCGCCGCCGCGGAGTG
GACCAACACACCGGACCCAGCCGACACCACGTTCAAGC'TCGAG

Figure 4

SEQ ID NO:6

AAGCTTGCATGCCTGCA'GGCCTTCAAGACCACCAAACCGAAGCGNATCAACATGAACC
CGCCGGACGGAGTGNTCGGCCCAAAGGAATCTGTCAACGTGGCCGTNTTCTGNGACGCC
TTCGACCCCGGCAGCGAGGACACCAAGGACGACCGTGTGACCGTGGCGTGGACCAACGT
GCCGGAACCGCCCGGCGCCGCCGCCGCCGCGGAGTGGACCAACACACCGGACCCAGCCG
ACACCACGTTCAAGC'TCGACTCTAGAG'**GATCC**TATCATGTCCATGTTGAGGTGACGA
AGCATCCTTCCATCAGACGTTGTACTCGATCGGCAAGTTCTTGCGGCGCACCATCCCGT
CTCCCTGGAACCA**CTCGAG**CTTGAACGTGGTGTCGGCTGGGTCCGGTGTGTTGGTCCAC
TCCGCGGCGGCGGCGGCGCCGGGCGGTTCCGGCACGTTGGTCCACGCCACGGTCACACG
GTCGTCCTTGGTGTCCTCGCTGCCGGGGTCGAAGGCGTCNCAGAANACGGCCACGTTGA
CAGATTCCTTTGGGCCGANCACTCCGTCCGGCGGGTTCATGTTGATNCGCTTCGGTTTG
GTGGTCTTGAAGGCCTGCAGCCATGG

Figure 5

SEQ ID NO:9

5'-
CCAACCCTGCACAAAATGCTATGATGGGACATCGTGTTAAGGCATGACTGTT
TTATTTGCAATTGTTATTTTGGATTATTACGATAGATCTTACCTTGGTCGACTT
TTCGTATGAATTTGTCCGTCACAACCCCTTACAATGCTGATTTTGACGGGGAT
GAAATGAATTAGCACCTTCCGCAATCACTGGAGACACGGGCAGAAATAAACG
AAATTGCGATGGTTTTTATTAATTTAAAGCACCAAATATAACCCTTACCTTTT
CTCTAAAAAGGCATCTCGACAGTTAATTACGCCACAGGCCAACAAGCCAGTG
ATGGGAATTGTGCAGGACACATTGACCGCAGTTCGAATGATGACTAAACGCG
ACGTTTTTATTGATTACGCTCGTCTCATGGATTTGTTGATGCATTTGCCAAATT
GGGATGGAAAAATTCCGCAGCCAGCGATAATCAAACCCAAGCCACTTTGGAC
CGGAAAACAAGTGTTTACAAAGATAATTCCAGGTTTTGTCAAATGAAACTTTT
CCTCCATTCTTTGTTTTGTTCTAACTAAGGCAGTGTCAATGTTATCCGAACAC
ATTCGACCCATCCGGACGACGAAGACAGCGGACCATACAAATGGATTTCCCC
TGGCGACACCAAAGTGCTCATTGAGAACAGCGAACTTCTCTCTGGGATAATT
TGTTCCAAAACTGTTGGCAGAGGTTCCNGAAACCTTCTTCACATTGTCGCATT
AGAATTGGGTCATCAAATTGCTGCCGAGTTATATGCCAACATACAAACTGTT
ATAAACGCATGGCTTCTCGCCGAGGGACACACCATTGGAATTGGTTTCCAATT
TTACTTTTATTTACAATAATTTTGTTTAACTCTCAGGTGACACAATTGCTGATA
CTTCCACCTACAGAGATATCCAGGAGACCATAAGAAAGGCCAAACAGGATGT
CATTGATGTTATCGAGAAAGCTCACAACGATGATNCTCGAGCCGACTNCCCG
GGAACACACTTCGACAGACTTCGAAAATCAAGTGAACCGAATTNCTG-3'

Figure 6

SEQ ID NO:10

5'-

GGCAGTGTCAATGTTATCCGAACACATTCGACCCATCCGGACGACGAAGACA
GCGGACCATACAAATGGATTTCCCCTGGCGACACCAAAGTGCTCATTGAGAA
CAGCGAACTTCTCTCTGGGATAATTTGTTCCAAAACTGTTGGCAGAGGTTCCN
GAAACCTTCTTCACATTGTCGCATTAGAATTGGGTCATCAAATTGCTGCCGAG
TTATATGCCAACATACAAACTGTTATAAACGCATGGCTTCTCGCCGAGGGAC
ACACCATTGGAATTGGT-3'

Figure 7

SEQ ID NO:13

Antisense fragment-285bp
279bp exon region from above showing the RP2_KpnF1B and RP2_BamRB primers:

5'-

GGCAGTGTCAATGTTATCCGAACACATTCGACCCATCCGGACGACGAAGACA
GCGGACCATACAAATGGATTTCCCCTGGCGACACCAAAGTGCTCATTGAGAA
CAGCGAACTTCTCTCTGGGATAATTTGTTCCAAAACTGTTGGCAGAGGTTCCN
GAAACCTTCTTCACATTGTCGCATTAGAATTGGGTCATCAAATTGCTGCCGAG
TTATATGCCAACATACAAACTGTTATAAACGCATGGCTTCTCGCCGAGGGAC
ACACCATTGGAATTGGT-3'

Figure 8
SEQ ID NO:14

Reverse complement of the 279bp exon fragment showing the RP2_KpnF1B and RP2_BamRB primers:

5'-
ACCAATTCCAATGGTGTGTCCCTCGGCGAGAAGCCATGCGTTTATAACAGTTT
GTATGTTGGCATATAACTCGGCAGCAATTTGATGACCCAATTCTAATGCGACA
ATGTGAAGAAGGTTTCNGGAACCTCTGCCAACAGTTTTGGAACAAATTATCC
CAGAGAGAAGTTCGCTGTTCTCAATGAGCACTTTGGTGTCGCCAGGGGAAAT
CCATTTGTATGGTCCGCTGTCTTCGTCGTCCGGATGGGTCGAATGTGTTCGGA
TAACATTGACACTGCC-3'

Figure 9

Cloning strategy for sense RNA polymerase II sequence

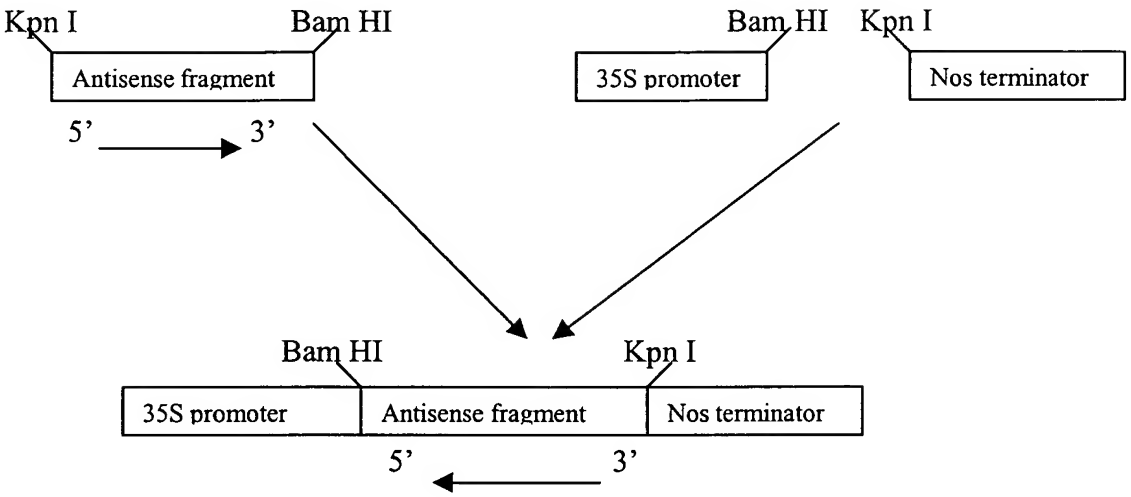


Figure 10

SEQ ID NO:17

GGCAGTGTCAATGTTATCCGAACACATTCGACCCATCCGGACGACGAAG
ACAGCGGACCATACAAATGGATTTCCCCTGGCGACACCAAAGTGCTCATTGA
GAACAGCGAACTTCTCTCTGGGATAATTTGTTCCAAAACTGTTGGCAGAGGTT
CCNGAAACCTTCTTCACATTGTCGCATTAGAATTGGGTCATCAAATTGCTGCC
GAGTTATATGCCAACATACAAACTGTTATAAACGCATGGCTTCTCGCCGAGG
GACACACCATTGGAATTGGT

Figure 11

Cloning strategy for sense RNA polymerase II sequence

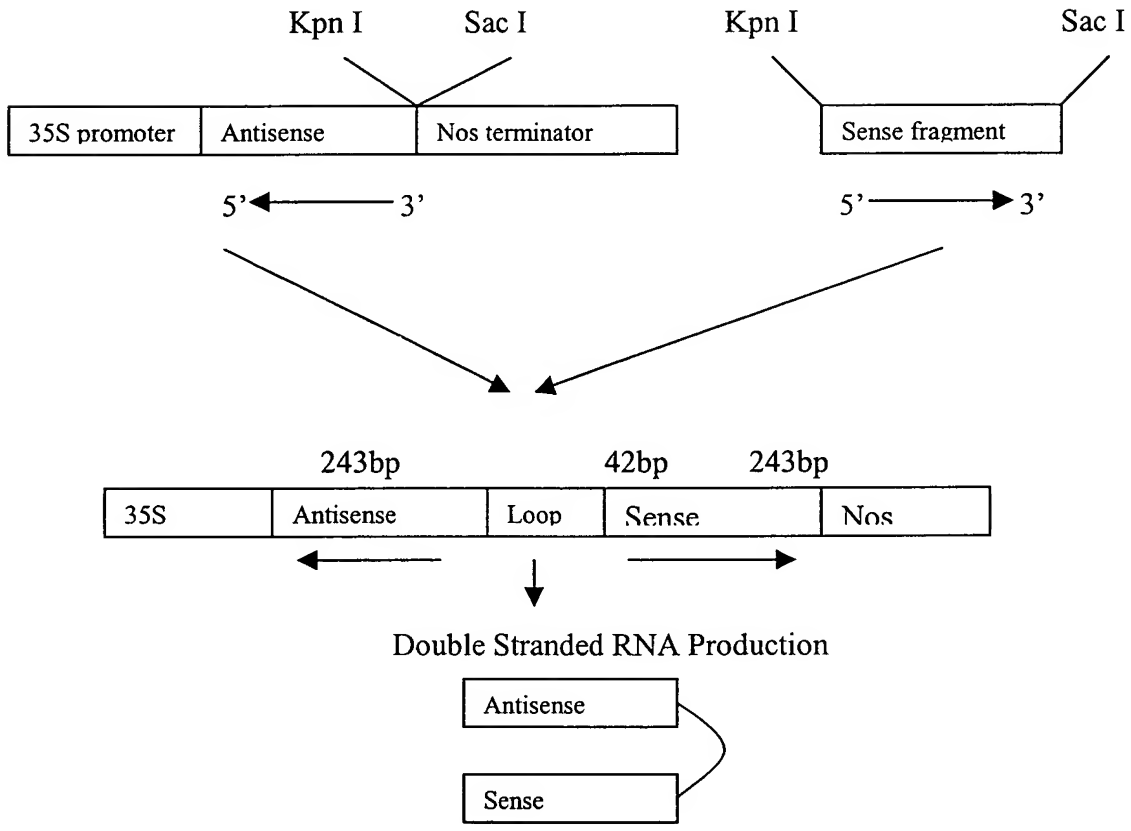
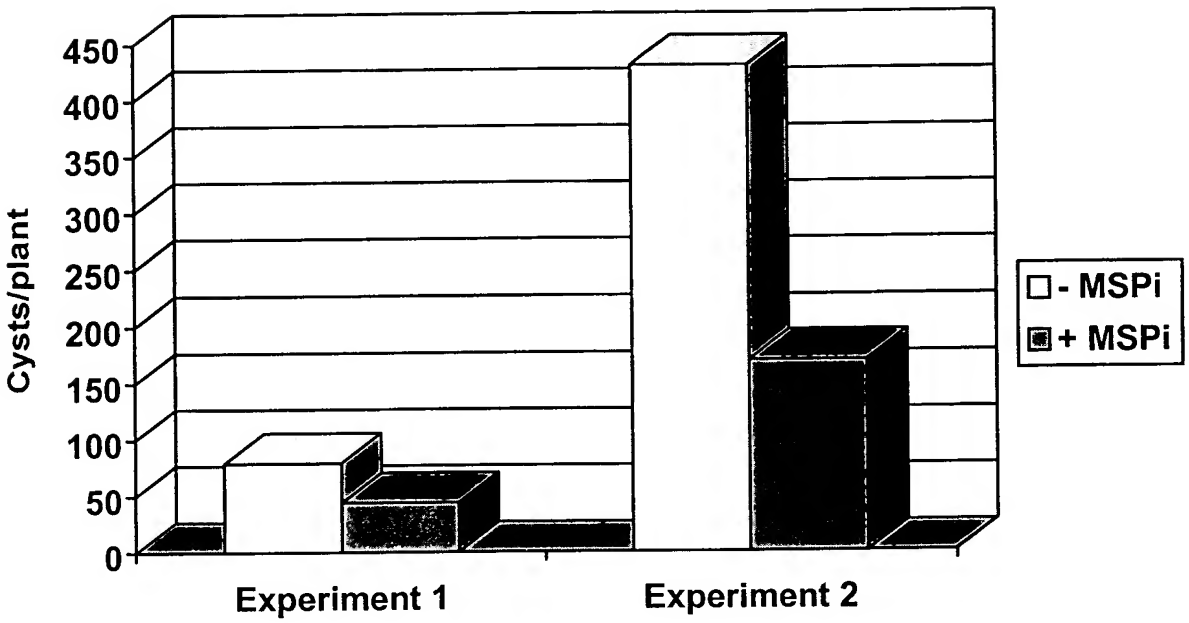


Figure 12

SEQ ID NO:18

Sp6-
CAAGAAACGATGGTCCCAGGTGATGTACATGTACTTTTTGCTCGGGCATCGAATTATGG
ACTCACATTTGAGCGTAGAAGACAAACAATTGCAGGTCTTTTGAGCCTAAATTTTGCCC
TCGTGGAATCTGTGCAATAATTCAATGTTCGCACCGATGCTTAGGCTGACAACACATAT
ATTCTCGCCATTGATGGCGATTCCAAATTCGAACCAGCGGCAGTGATTCGTCTTTTACA
TCTGATGAACTTGAAAAGCGACGTTGGCTGTGCGTGCGGAAGAATCCATCCGATTGGAG
AAGGTGTGCTATCCTTCCCATTAATGGTGAATTTCTTACCATTCCCCAGGGGTC**ATGGT**
TTGGTACCAAAAGTTCGAGTACGCAATCGCCCATTGGTTCCAAAAGGCTGCTGAGCATG
TGTTCGGCTGTGTTTTGTGTGCCCCCGGTAGCTTCTCTCTGTTTCGTGCTTCTGCTCTC
ATGGATGACAATGTGATGCACAAATACACCAAAANTGCCTCCGAACCNACGACNATTTT
GTTCAGTATGATCAAGGCGAAGACCCGATGGA-T7

Figure 13. Soybean cyst production on transgenic lines vs. control plants as functional of cysts per plant.



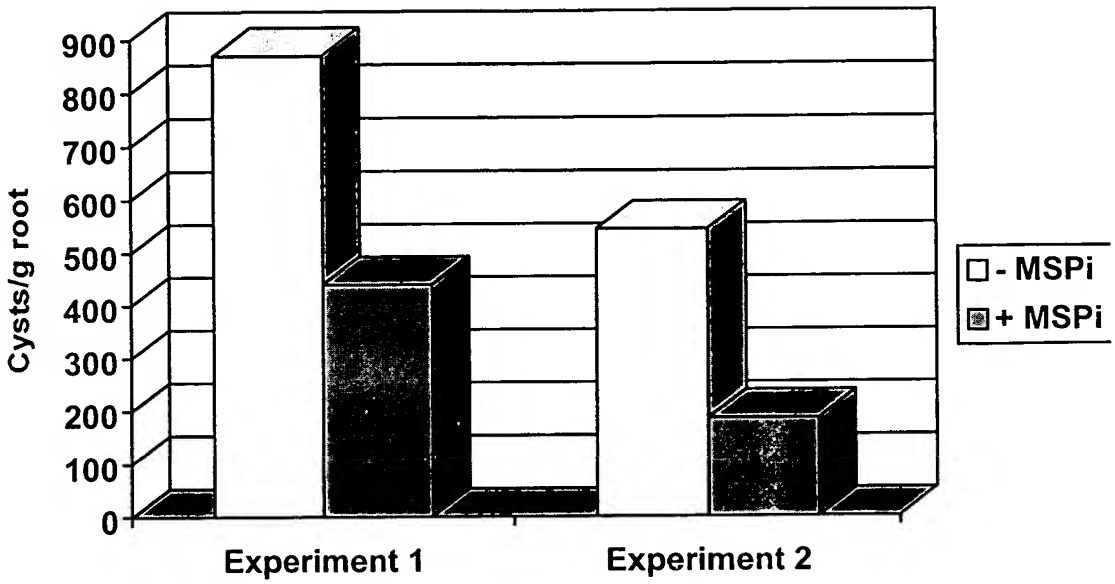


Figure 14. Soybean cyst production on transgenic lines vs. control plants as functional of cysts per gram of root tissue. "*" indicates data is significant.

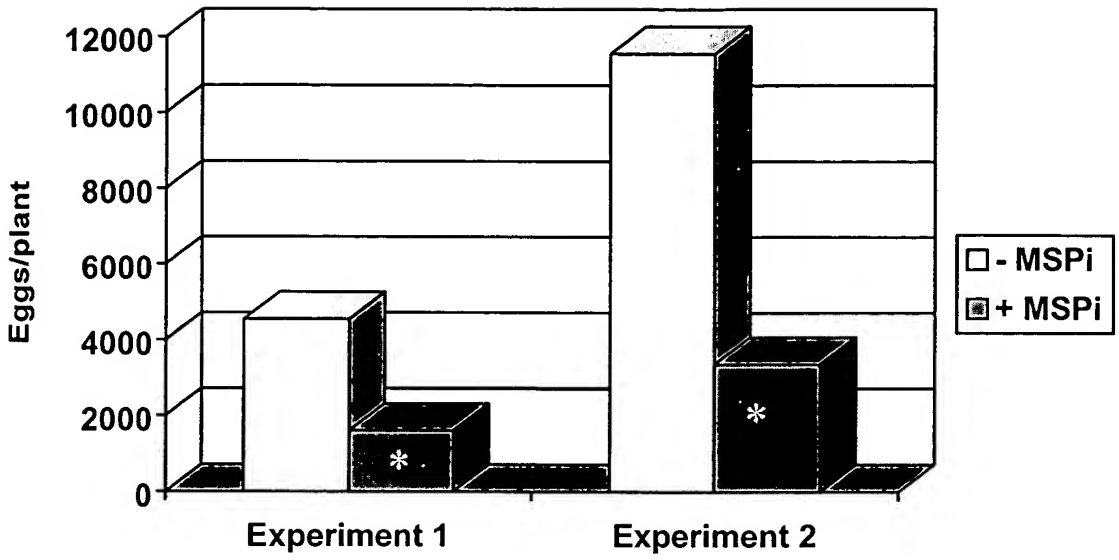


Figure 15. Soybean cyst nematode egg production on transgenic lines vs. control plants as an average number of eggs per plant. "*" indicates data is significant.

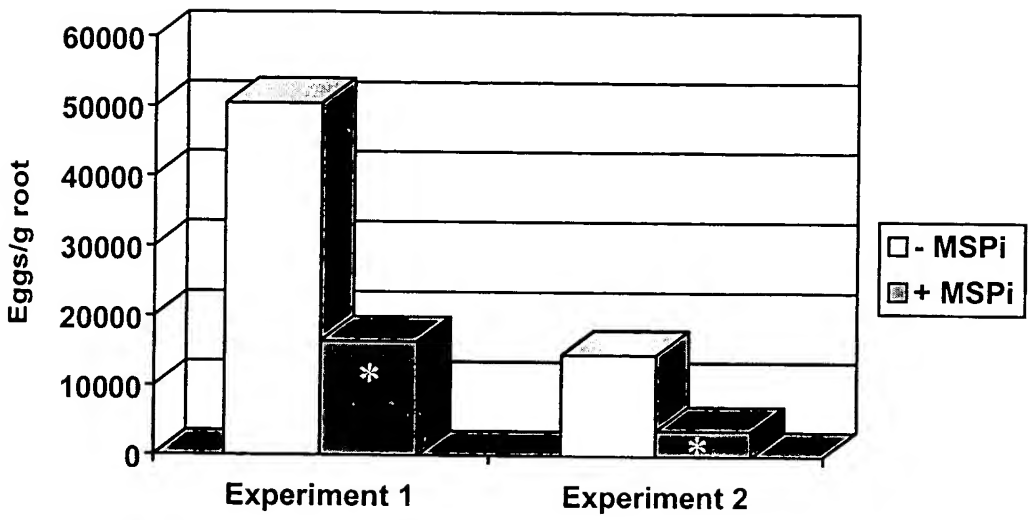


Figure 16. Soybean cyst nematode egg production on transgenic lines vs. control plants as an average number of eggs per gram of root. "*" indicates data is significant.

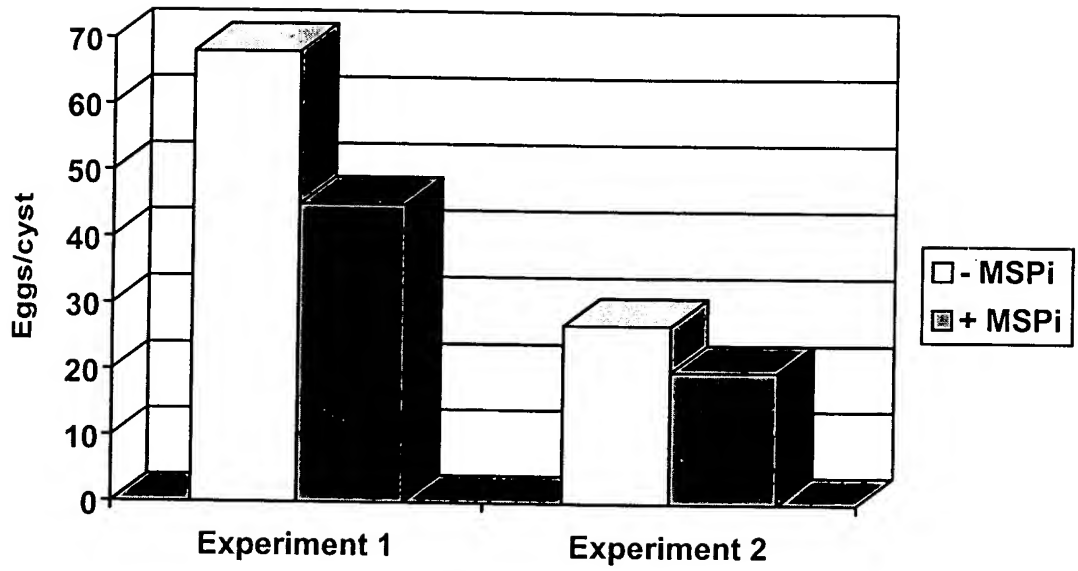


Figure 17. Soybean cyst nematode egg production on transgenic lines vs. control plants as an average number of eggs per cyst.